

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A fuel cell system comprising:
 - a fuel cell to be supplied with a gas for power generation, the gas unused for the power generation to be discharged out of the fuel cell;
 - a circulation flow path through which the gas discharged out of the fuel cell is resupplied to the fuel cell;
 - a variable flow rate circulation pump for circulating the gas through the circulation flow path, which is operative to adjust a flow rate of the gas in the circulation flow path;
 - a valve for discharging the gas in the circulation flow path to the outside of the circulation flow path;
 - a voltage sensor for measuring voltage of the fuel cell; and
 - a controller for controlling the circulation pump and the valve,wherein the circulation pump and the valve are controlled based on the voltage measured by the voltage sensor.
2. (Currently Amended) The fuel cell system of claim 1, wherein
 - the fuel cell comprises a plurality of cells stacked on one another, and the voltage sensor measures voltages of the respective cells, and wherein
 - if some of the measured voltages of the respective cells are within a predetermined range which includes an average value of the voltages of the respective cells,
 - the circulation pump is controlled to reduce a flow rate of the gas circulated, and the valve is controlled to increase an amount of gas to be discharged, as the average value of the voltages of the respective cells becomes lower ~~the number of cells with substantial voltage drops~~ increases.

3. (Currently Amended) The fuel cell system of claim 1, wherein
the fuel cell comprises a plurality of cells stacked on one another, and the
voltage sensor measures voltages of the respective cells, and wherein
the circulation pump is controlled to reduce a flow rate of the gas circulated,
and the valve is controlled to increase an amount of gas to be discharged, as a variation in the
measured voltages between the cells becomes smaller.

4. (Currently Amended) The fuel cell system of claim 1, wherein further
comprising:
the fuel cell comprises a plurality of cells stacked on one another, and the
voltage sensor measures voltages of the respective cells, and wherein
the fuel cell system further comprises a clogging detector for determining
which monitors the voltages of the respective cells and determines possibility of clogging of a
gas passage in the fuel cell based on the monitored voltages of the respective cells,
wherein the circulation pump is controlled to reduce a flow rate of the gas
circulated, and the valve is controlled to increase an amount of gas to be discharged, as the
possibility of the clogging is determined to be low.

5. (Currently Amended) The fuel cell system of claim 4, wherein
~~the fuel cell comprises a plurality of cells stacked on one another, and the~~
~~voltage sensor measures voltages of the respective cells, and wherein~~
if some of the monitored voltages of the respective cells are within a
predetermined range which includes an average value of the voltages of the respective cells,
the possibility of clogging is determined to be lower, as the average value of the voltages of
the respective cells becomes lower ~~the number of cells with substantial voltage drops~~
~~increases.~~

6. (Currently Amended) The fuel cell system of claim 4, wherein
~~the fuel cell comprises a plurality of cells stacked on one another, and the~~
~~voltage sensor measures voltages of the respective cells, and wherein~~
the possibility of clogging is determined to be lower, as a variation in the
measured voltages between the cells becomes smaller.

7. (Currently Amended) The fuel cell system of claim 1, wherein
the valve is controlled to increase an amount of gas to be discharged, ~~[[as]]~~ if a
rate of increase in the measured voltage is kept below a predetermined rate while low, ~~after~~
the circulation pump is being controlled to increase a flow rate of the gas circulated more than
that in a normal operation.

8. (Currently Amended) A method for improving fuel gas consumption in power
generation of fuel cells, wherein the fuel gas unused for the power generation is resupplied to
the fuel cells through a fuel gas circulation system which includes a variable flow rate
circulation pump operative to adjust a flow rate of the fuel gas circulating through the fuel gas
circulation system, the method comprising:

monitoring output voltages of the respective fuel cells;

controlling the variable flow rate circulation pump to increase ~~increasing~~ flow
rate of the fuel gas in the fuel gas circulation system, if some of the monitored output voltages
are out of a predetermined range which includes an average value of the output voltages of
the respective fuel cells ~~variation in the output voltages is larger than a predetermined range;~~
and

discharging the fuel gas out of the fuel gas circulation system, if some of the
monitored output voltages are ~~the variation in the output voltages is~~ within the predetermined
range and ~~[[an]]~~ the average value of the output voltages of the respective fuel cells is lower
than a predetermined value.